



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/748,754 | 12/26/2000 | Andrew P. Kramer | 279.166US1 | 4508 |

21186 7590 07/18/2002

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. BOX 2938
MINNEAPOLIS, MN 55402

EXAMINER

OROPEZA, FRANCES P

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

3762

DATE MAILED: 07/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/748,754

Applicant(s)

KRAMER ET AL.

Examiner

Frances P. Oropeza

Art Unit

3762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 5, 10, 12, 14, 15 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 4, “the paired atria” lack antecedent basis.

Claim 5 is unclear because it appears “a synchronized pacing mode” should be --the synchronized pacing mode-- and “a synchronized chamber protection period” should be --the synchronized chamber protection period--.

Claim 10 is unclear because it appears “a synchronized chamber sense” should be --the synchronized chamber sense--.

Claim 12 is unclear because it appears “delivering paces” should be --delivering the paces--.

In claim 14, “the paired atria” lack antecedent basis.

Claim 15 is unclear because it appears “upon rate chamber” should be --upon the rate chamber--.

Claim 20 is unclear because it appears “by a synchronized” should be --by the synchronized chamber--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Thompson et al. (US 5902324). Thompson et al. disclose a multi-chamber cardiac pacing system for providing synchronous pacing to at least the two upper heart chambers or the two lower heart chambers or to three or to all four heart chambers. A symmetric and an asymmetric single chamber embodiment (c 7, ll 55-67) and a symmetric and an asymmetric dual chamber embodiment (c 13, ll 53-59) are disclosed. A bi-atrial and bi-ventricular, upper and lower chamber pacing system is also disclosed where pacing is inhibited if intrinsic pace are sensed (c 8, ll 1-15). The invention operates in demand and triggered pacing modes to treat bradycardia (c 9, ll 35-52). Offset synchronized pacing is effected by optimally timed cardiac pacing pulses to each chamber as necessary accounting for the implantation site of the electrode (c 11, ll 3-7 and 33-44). Multiple leads and multiple electrode configurations can be employed (c 13, ll 11-19). A blank signal read as a specified delay renders the amplifier inoperable prior to the protection period (c 14, ll 15-35). A synchronized chamber only pacing mode is disclosed, where a safety pulse is delivered as a result of the circuit timing (c 15, ll 23-27), and CDW INHIBIT signal, read as a synchronized chamber protection period, serve to alter the period of signal triggering (c 15, ll 28-40).

Art Unit: 3762

4. Claims 1, 2, 6, 9, 11, 12, 16, 19 and 21-24 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kieval et al. (US 5507782).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson et al. (US 5902324) in view of Kieval et al. (US 5507782). As discussed in paragraph 3 of this action, Thompson et al. disclose the claimed invention except for the pacing rate being varied based on an exertion level sensor.

Kieval et al. disclose a method and apparatus for dual chamber cardiac pacing and teach that it is known to use an activity sensor to allow provision of rate responsive pacing (c 10, ll 25-30). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the multi-chamber cardiac pacing system as taught by Thompson

Art Unit: 3762

et al., with the activity sensor as taught by Kieval et al. to provide a means to establish cardiac demand that can be viewed as an alternate means, a back-up means or a means to confirm the current cardiac demand determination.

Other Prior Art Cited

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 5792203 to Schroepel teaches use of multiple electrodes, multi-site electrode placement and multiple pacing modes.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fran Oropeza whose telephone number is (703) 605-4355. The examiner can normally be reached on Monday – Thursday from 6 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela D. Sykes can be reached on (703) 308-5181. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 306-4520 for regular communication and (703) 306-4520 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.

Frances P. Oropeza
Patent Examiner
Art Unit 3762

FP
7/14/02

JEFFREY R. JASTRZAB
PRIMARY EXAMINER

3762
7/15/02